

REMARKS

Applicant respectfully requests entry of the foregoing and reconsideration of the subject matter identified in caption, as amended, pursuant to and consistent with 37 C.F.R. § 1.112, and in light of the remarks which follow.

Applicant acknowledges the Notice of July 27, 2009. In view of the "non-final" status of the January 8, 2009, Official Action, Applicant provides the following remarks and the attached Declaration of Dr. Joso.

Applicant thanks the Examiner for indicating that claim 60 is allowed in view of the Declaration of Dr. Martin Joso submitted on December 6, 2007. For at least the reasons that follow, Applicant respectfully submits all pending claims in the application are in condition for allowance.

Claims 1, 3-27, 29-30, 32-55, 57-58 and 60-61 are pending in the application.

By the above amendment, Applicant amended claim 61 to address the claim objection. A claim that has been amended in a manner that does not narrow the claim's scope should be accorded its full range of equivalents.

Turning now to the Official Action of January 8, claim 61 stands objected to for including a minor informality. Applicant has amended claim 61 to correct the informality.

Reconsideration and withdrawal of the objection are respectfully requested.

Claims 1, 3-6, 9-18, 25, 29-30, 32-46, 53 and 58 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Iijima (U.S. Patent No. 6,258,857) in view of Fankhauser (U.S. Application Publication No. 2002/0155073). Claims 1, 3-12, 14-25, 29-30, 32-41 and 47-52 stand rejected under 35 U.S.C. § 103(a) over Iijima in view of Torgerson (U.S. Patent No. 6,458,906). Claims 26-27, 54-55 and 57

stand rejected under 35 U.S.C. § 103(a) over Iijima, in view of Torgerson and further in view of Candau (U.S. Patent No. 6,033,648).

Independent claim 1 recites a device comprising (A) a reservoir confining at least one composition intended for protecting the skin and/or hair against UV radiation, and (B) means to place said composition under pressure, wherein said composition is in the form of simple or complex emulsion and comprises, in a cosmetically acceptable aqueous carrier:

- (a) a photoprotective system capable of screening out UV radiation; and
- (b) spherical microparticles of porous silica, wherein the composition exhibits a SPF that is greater than a SPF exhibited by an identical composition that does not comprise spherical microparticles of porous silica. (Emphasis added.)

Independent claim 30 recites suited for pressurization and intended for protecting the skin and/or hair against UV radiation, wherein said composition is in the form of a simple or complex emulsion and comprises, in a cosmetically acceptable aqueous carrier:

- (a) a photoprotective system capable of screening out UV radiation; and
- (b) spherical microparticles of porous silica, wherein the composition exhibits a SPF that is greater than a SPF exhibited by an identical composition that does not comprise spherical microparticles of porous silica. (Emphasis added.)

To establish a *prima facie* case of obviousness, the prior art reference (or references when combined) must teach or suggest all of the claim features. (See, *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974).) In addition, "all words in a claim must be considered in judging the patentability of that claim against the prior art." (See, *In re Wilson*, 424 F.2d 1382, 1385; 165 U.S.P.Q. 494, 496 (C.C.P.A.

1970. See also, M.P.E.P. § 2143.03.) Applicant submits that these requirements have not been met.

Iijima relates to (1) a composition contained in the releasing container such as an aerosol container or pump-type releasing container, and used as being released from such container, and (2) a releasing container product containing such composition. (See, Iijima at col. 1, lines 5-11.)

Fankhauser relates to the use of mixtures of micronized organic UV filters for preventing tanning and for lightening human skin and hair and to their use in cosmetic and pharmaceutical formulations. (See, Fankhauser at col. 1, paragraph [0001].)

Torgerson relates to water or alcohol soluble or dispersible thermoplastic elastomeric copolymers and to cosmetic and pharmaceutical compositions containing these copolymers. (See, Torgerson at col. 1, lines 10-15.)

Candau relates to novel cosmetic and/or dermatological compositions comprising at least one iron oxide nanopigment, well suited for artificially tanning and/or darkening human skin to such extent as to resemble a natural tan. (See, Candau at col. 1, lines 10-18.)

Although the Official Action has continued to maintain each of the above § 103 rejections over the asserted combinations of references, Applicant continues to respectfully disagree with the rejections. In particular, Applicant is providing herewith a further declaration of Dr. Martin Joso addressing each of the outstanding rejections.

As indicated in the attached declaration, Dr. Joso has conducted research in field of cosmetic science, specifically suncare research for thirteen (13) years and

based on his significant experience and his education in Organic Chemistry and Chemical Engineering, it is his professional opinion that none of the cited references, alone or in combination, discloses or fairly suggests a device or composition comprising an emulsion and a photoprotective system capable of screening UV radiation including the combination of features recited in independent claims 1 and 30. In addition, he submits that none of the cited references, alone or in combination, discloses or fairly suggests a device comprising an emulsion and a photoprotective system and further comprising means to place the composition comprising the emulsion and photoprotective system under pressure, as further recited in claim 1.

Concerning Iijima, Dr. Josso explains that Iijima is directed to concentrated internal liquid compositions in a releasing container. He further states that the composition of Iijima is generally in the form of an aqueous lotion with dispersed particles of porous silica therein carrying an active compound. The disclosed particles are used together with a synthetic resin and/or acrylate acid polymer in the presence of an alkaline agent. Various active compounds are disclosed including perfume, insect repellent, deodorant, plant extract, etc., but nowhere does Iijima disclose or fairly suggest an emulsion comprising a photoprotective system capable of screening UV radiation and spherical microparticles of porous silica.

Further, Dr. Josso indicates that based on his review of Iijima, Examples 1-9 appear to be specifically directed to hydroalcoholic lotions containing porous silica carrying active ingredients, which in his expert opinion, do not constitute UV screening agents, but are instead insect repellants such as, for example, DEET, or antiperspirants such as, for example, Aluminum Hydroxide Chloride.

In addition, Dr. Josso indicates that Iijima does not disclose or fairly suggest using porous silica particles in a composition in the form of an emulsion comprising (a) a photoprotective system capable of screening out UV radiation and (b) spherical microparticles of porous silica, wherein the composition is conditioned in a pressurized device. Also, while Dr. Josso indicates that Iijima may disclose compositions containing surfactants, he explains that Iijima discloses the possibility of including surfactants useful only to enhance the dispersion performance of the porous fine particles, not to form an emulsion. (See Iijima, for example, at col. 12, lines 60-64 and col. 13, first paragraph.) In Dr. Josso's opinion, the secondary references, Fankhauser, Torgerson and Candau do not overcome these deficiencies in Iijima.

In further support of his position that the claimed subject matter is not obvious in view of the cited references, alone or in combination, Dr. Josso conducted comparative tests. He conducted the comparative tests with (1) anti-sun formulation A in the form of hydroalcoholic lotion according to Iijima capable of being packaged as a non-aerosol spray and capable of being dispensed in the form of fine particles and (2) an anti-sun formulation B in the form of an emulsion according to the claims presently pending in the application capable of being packaged as a non-aerosol spray and capable of being dispensed in the form of fine particles.

Following a first set of tests on UVA filter (oxybenzone), Dr. Josso tested a UVB filiter (octocrylene) to demonstrate that the invention was not restricted to a particular UV filter. Information about the specific percent by weight quantities of elements in formulations A and B used in Dr. Josso's tests are presented at page 3 of his attached Declaration in paragraph 9.

Dr. Josso tested the formulations to determine the sun protection factor (SPF) provided by each of the formulations. The results are presented in the Table provided at page 4 of his Declaration and they clearly show that the addition of the spherical microparticles of porous silica to the emulsion containing a UV filter makes it possible to dramatically increase the SPF. In Dr. Josso's professional, expert opinion, these are unexpected and surprising results.

Accordingly, Dr. Josso submits that the claimed subject matter is non-obvious over the cited prior art references, alone or in combination, for at least the additional reason that the claimed combination of features provides unexpected results in the area of SPF, which is neither disclosed nor suggested by any of the cited references.

Dr. Josso further indicates that it is his understanding that the Examiner has previously indicated that the comments and data previously provided were found to be unpersuasive because it was purportedly "unclear how applicant obtained the alleged 'prior art composition.'" In response and despite the statement in the Official Action that "applicant selectively picked from the teachings of Iijima while ignoring others to obtain a composition that would support their arguments," Dr. Josso clearly states in his Declaration that he prepared the prior art composition following the steps indicated at pages 4-5 of his Declaration. In particular, he indicates that he had to compare aqueous composition according to Iijima containing microparticles of porous silica and a UV filter to an emulsion according to the invention containing microparticles of porous silica and a UV filter. He sought to compare two compositions, which were as close as possible. He selected embodiment 6 of Iijima containing 2.5% of silica, 0.8% polyethylene powder, an active ingredient (7% DEET and 2.5% 1,3 butylene glycol) and 87.2% ethanol. He replaced the active

ingredients with a UV filter. Finally, he added water to obtain a stable aqueous composition. Dr. Josso determined that embodiment 9 containing 15% of water was not appropriate for preparing a stable homogenous hydro-alcoholic composition with a significant amount of oil (octocrylene) because he believed that using such an amount of water would cause phase separation due to the amount of oil present in the formula.

Accordingly, Dr. Josso states in his Declaration that the compositions he compared are in fact a fair comparison of compositions representative of those taught by Iijima and those within the scope of the claims in the instant application. Accordingly, Dr. Josso believes that the comparative data he has provided confirms the nonobviousness of the claimed subject matter and that the data is persuasive and should be given appropriate consideration.

Indeed, the Federal Circuit has established that evidence arising out of the so-called secondary considerations must always, when present, be considered en route to a determination of obviousness. Evidence of secondary considerations can be the most probative and cogent evidence in the record. It can establish that an invention appearing to have been obvious in light of the prior art was not. (See, *Stratoflex v. Aeroquip Corp.*, 218 U.S.P.Q. 871, 879 (Fed. Cir. 1983) and *Joy Technologies v. Manbeck*, 17 U.S.P.Q.2d 1257 (DDC 1990).) In this case, there is clearly no appreciation in any of the cited references, alone or in combination of the various advantages realized by the claimed combination of features. In particular, the cited references, even in combination, fail to disclose or suggest that one could combine the claimed features (including *inter alia* a photoprotective system capable of

screening out UV radiation and spherical microparticles of porous silica) to significantly increase SPF.

Accordingly, even if the Official Action has established a *prima facie* showing of obviousness, which Applicant submits it has not, the unexpected results achieved by the claimed combination features would rebut such a showing.

For at least these reasons, claims 1 and 30 are patentable over the asserted combinations of references. The remaining claims depend, directly or indirectly from claims 1 and 30 and are, therefore, also patentable for at least the reasons that claims 1 and 30 are patentable. Reconsideration and withdrawal of the § 103 rejections are respectfully requested

From the foregoing, Applicant earnestly solicits further and favorable action in the form of a Notice of Allowance.

If there are any questions concerning this paper or the application in general, the Applicant invites the Examiner to telephone the undersigned at the Examiner's earliest convenience

Respectfully submitted,

BUCHANAN INGERSOLL & ROONEY PC

Date: August 27, 2009

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Attachment: July 7, 2009 Declaration of Dr. Martin Josso